

1. An information processing system in which a plurality of server modules and a storage module, which comprises a storage device for storing a service to be  
5 executed by said server modules and a controller for controlling said storage device, are interconnected via a network,

wherein said storage module comprises a system configuration information retention database for retaining  
10 system configuration information including the information about the configuration of server modules necessary for the execution of said service and the number of server modules to which said service is to be assigned;

wherein said server modules comprise a configuration  
15 information transmission unit for transmitting configuration information about the server modules to said storage module at the time of starting the server modules;  
and

wherein said storage module comprises a comparison  
20 routine for comparing the configuration information transmitted by said configuration information transmission unit against the system configuration information retained by said system configuration information retention database, and gives, in accordance with the result of  
25 comparison made by said comparison routine, a host name,

which is unique to the information processing system, to a server module from which the configuration information is transmitted, assigns a service included in the system configuration information to the server module, transmits  
5 data for executing the service, and updates the number of server modules to which said service, which is included in said system configuration information, is to be assigned.

2. The information processing system according to  
10 claim 1, wherein said server modules retransmit said configuration information if said storage module fails to transmit data for executing a service even when a predetermined period of time elapses after said configuration is transmitted by said configuration  
15 information transmission unit, and comprises an error reporting routine for reporting a response error if a predetermined retransmission count is exceeded.

3. The information processing system according to  
20 claim 1, comprising an error report routine for reporting an unassigned error if the number of server modules, to which said service, which is included in said system configuration information, is to be assigned, fails to reach a predetermined value within a predetermined period of time

after said storage module transmits data for executing a service to said server modules.

4. The information processing system according to  
5 claim 2, comprising an alarm routine for prompting a system administrator to modify said system configuration information if said response error or said unassigned error is reported.

10 5. The information processing system according to claim 1, wherein the configuration information transmitted by said configuration information transmission unit includes a standardized CPU name and standardized CPU performance information; wherein said storage module  
15 comprises a conversion information retention unit for retaining conversion information necessary for conversion between server module CPU performance information and standardized CPU performance information required for running said service and a conversion routine for  
20 converting CPU performance information included in said configuration information in accordance with said conversion information; and wherein said comparison routine compares CPU performance information converted by said conversion routine and corresponding information retained  
25 by said corresponding information retention unit.

6. The information processing system according to claim 1, comprising a logical partitioning routine for logically partitioning a resource of said server modules,

5        wherein said configuration information includes information that indicates whether the server modules can be logically partitioned; and

         wherein said storage module assigns a service included in said system configuration information to each  
10    one of a plurality of logically partitioned units.

7. A server module which is connected via a network to a storage module, which comprises a storage device for storing a service to be executed by the server module and  
15    a controller for controlling said storage device, the server module comprising:

         a configuration information transmission unit for transmitting configuration information about the server module to said storage module when the server module starts  
20    up;

         a reception unit for receiving data for service execution by the server module and a host name unique to the information processing system, which are both transmitted from said storage module; and

a service start routine for starting the service in accordance with the received data.

8. A storage module which is connected to a plurality  
5 of server modules via a network and equipped with a storage device for storing a service to be executed by said server modules and a controller for controlling said storage device, the storage module comprising:

a system configuration information retention unit for  
10 retaining system configuration information including the information about the configuration of server modules necessary for the execution of said service and the number of server modules to which said service is to be assigned,

wherein said server modules comprise a configuration  
15 information transmission unit for transmitting configuration information about the server modules to said storage module at the time of starting the server modules; and

wherein said storage module comprises a comparison  
20 routine for comparing configuration information about said server modules, which is transmitted by the server modules, and the system configuration information retained by said system configuration information retention unit, and gives, in accordance with the result of comparison made by said  
25 comparison routine, a host name, which is unique to the

information processing system, to a server module from which the configuration information is transmitted, assigns a service included in the system configuration information to the server module, transmits data for executing the service, and updates the number of server modules to which said service, which is included in said system configuration information, is to be assigned.

9. A system construction method for use in an information processing system in which a plurality of server modules and a storage module, which comprises a storage device for storing a service to be executed by said server modules and a controller for controlling said storage device, are interconnected via a network,

wherein said server modules transmit configuration information about the server modules to said storage module at the time of starting the server modules;

wherein said storage module compares configuration information transmitted from said server modules against system configuration information including information about the configuration of server modules necessary for the execution of said service and the number of server modules to which said service is to be assigned; and gives, in accordance with the result of the above comparison, a host name, which is unique to the information processing system,

to a server module from which the configuration information is transmitted, assigns a service included in the system configuration information to the server module, transmits data for executing the service, and updates the number of  
5 server modules to which said service, which is included in said system configuration information, is to be assigned.

10. The system construction method according to claim 9, comprising the steps of:

10 retransmitting said configuration information if the data for service execution is not transmitted from said storage module within a predetermined time after the transmission of said configuration information; and  
reporting a response error if said retransmission is  
15 performed more than a predetermined number of times.

11. The system construction method according to claim 9, comprising a step of reporting an "unassigned" error if the number of server modules, to which said service, which  
20 is included in said system configuration information, is to be assigned, fails to reach a predetermined value within a predetermined period of time after said storage module transmits data for executing a service to said server modules.

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12. An information processing system in which a plurality of server modules and a storage module, which comprises a storage device for storing a service to be executed by said server modules and a controller for  
5 controlling said storage device, are interconnected via a network,

wherein said storage module comprises a system configuration information retention unit for retaining system configuration information including the information  
10 about the configuration conditions for server modules necessary for the execution of said service and the number of server modules operating said service; and a configuration condition request transmission means for transmitting to said server modules, at startup of the  
15 server modules, a configuration condition request including the request for the configuration of server modules necessary for the execution of said service; and

wherein said server modules comprise a comparison routine for comparing the configuration of a server module  
20 against a server module configuration required for the execution of said service, which is transmitted to the server module; and a response routine for transmitting response information, which indicates whether requirements specified by said configuration condition request are met,



to said storage module in accordance with the result of comparison made by said comparison routine; and

wherein said storage module gives, in accordance with said response information, a host name, which is unique to the information processing system, to a server module from which the response information is transmitted, assigns a service included in the system configuration information to the server module, transmits data for executing the service, and updates the number of server modules to which said service, which is included in said system configuration information, is to be assigned.

13. The information processing system according to claim 12, comprising an error report routine for reporting a configuration condition error if none of said response information meets the requirements specified by said configuration condition request.

14. The information processing system according to claim 12, comprising an error report routine for reporting an "unassigned" error if the number of server modules, to which said service, which is included in said system configuration information, is to be assigned, fails to reach a predetermined value within a predetermined period of time after said storage module transmits data for executing a service to said server modules.

15. The information processing system according to claim 13, comprising an alarm routine for prompting a system administrator to modify said system configuration  
5 information if said configuration condition error or said "unassigned" error is reported.

16. The information processing system according to claim 12, wherein configuration information request  
10 information transmitted by said configuration condition request transmission unit comprises a standardized CPU name, standardized CPU performance information, and conversion information that is necessary for conversion between server module CPU performance information and  
15 standardized CPU performance information required for running said service; and

wherein said server modules comprise a conversion unit for converting CPU performance information included in said configuration information request information in  
20 accordance with said conversion information; and wherein said comparison unit compares CPU performance information converted by said conversion unit and corresponding information retained by said corresponding information retention unit.

17. The information processing system according to claim 12, comprising:

a logical partitioning routine for logically dividing a resource of said server modules,

5        wherein said response information includes information that indicates whether the server modules can be logically partitioned; and

         wherein said storage module assigns a service included in said system configuration information to each  
10       one of a plurality of logically partitioned units.

18. A server module that is connected via a network to a storage module, which comprises a storage device for storing a service to be executed by a server module and a  
15       controller for controlling said storage device, the server module comprising:

a startup notification unit for notifying said storage module of server module startup;

         a reception unit for receiving, from said storage  
20       module, a configuration condition request including the request for the configuration of a server module that is transmitted at startup of said server module and necessary for the execution of said service for the server module;

         a comparison unit for comparing the configuration of  
25       the server module against a server module configuration

required for the execution of said service, which is transmitted to the server module;

a response unit for transmitting response information, which indicates whether requirements  
5 specified by said configuration condition request are met, to said storage module in accordance with the result of comparison made by said comparison unit;

a reception unit for receiving data for service execution by the server module and a host name unique to the  
10 information processing system, which are both transmitted from said storage module; and

a service start unit for starting the service in accordance with the received data.

15 19. A storage module which is connected to a plurality of server modules via a network and equipped with a storage device for storing a service to be executed by said server modules and a controller for controlling said storage device, the storage module comprising:

20 a system configuration information retention unit for retaining system configuration information including the information about server module configuration conditions required for the execution of said service and the number of server modules operating said service; and

a configuration condition request transmission unit for transmitting, at the time of starting said server modules, a configuration condition request including the request for server module configuration required for  
5 executing said service for the server modules,

wherein said storage module provides, in accordance with response information that is transmitted from said server modules to indicate whether requirements specified by said configuration condition request are met, a host  
10 name, which is unique to the information processing system, to a server module from which the response information is transmitted, assigns a service included in the system configuration information to the server module, transmits data for executing the service, and updates the number of  
15 server modules to which said service, which is included in said system configuration information, is to be assigned.

20. A method for use in an information processing system in which a plurality of server modules and a storage module,  
20 which comprises a storage device for storing a service to be executed by said server modules and a controller for controlling said storage device, are interconnected via a network, the method comprising:

sending a notification from said server modules to  
25 notify said storage module of server module startup;

transmitting from said storage module at said server module startup, a configuration condition request including the request for server module configuration required for the execution of said service to the server modules;

5           comparing in said server modules the configuration of a server module against the server module configuration required for the execution of said service for the server module, and

transmitting, in accordance with the result of said  
10 comparison, response information to said storage module in order to indicate whether requirements specified by said configuration condition request are met; and

providing from said storage module, in accordance with said response information, a host name, which is unique  
15 to the information processing system, to a server module from which the response information is transmitted,

assigning a service included in the system configuration information to the server module,

transmitting data for executing the service, and  
20           updating the number of server modules to which said service which is included in said system configuration information is to be assigned.

21. The system construction method according to claim  
25 20, further comprising reporting a configuration condition

error if none of said response information meets the requirements specified by said configuration condition request.

5           22. The system construction method according to claim 20, further comprising:

            reporting an "unassigned" error if the number of server modules, to which said service which is included in said system configuration information is to be assigned,  
10      fails to reach a predetermined value within a predetermined period of time after said storage module transmits data for executing a service to said server modules.

            23. The information processing system according to  
15      claim 3, comprising an alarm routine for prompting a system administrator to modify said system configuration information if said response error or said "unassigned" error is reported.

20           24. The information processing system according to claim 13, comprising an error report routine for reporting an "unassigned" error if the number of server modules, to which said service, which is included in said system configuration information, is to be assigned, fails to reach  
25      a predetermined value within a predetermined period of time

after said storage module transmits data for executing a service to said server modules.

25. The method of claim 20 wherein the service is an  
5 operating system and/or application.